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| 09/786,328 | 03/02/2001 | Konstantinos Poulakis | 41172 | 8449 |

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EXAMINER

GOFF II, JOHN L

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| ART UNIT | PAPER NUMBER |
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1733

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,328

Applicant(s)

POULAKIS, KONSTANTINOS

Examiner

John L. Goff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 4/5/04. The previous 35 USC 102 rejection over Banfield et al. is withdrawn in view of applicants arguments.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 12, 18, 19, 21, 22, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (Specification page 2, paragraph 1) in view of Banfield et al., Harada (JP 386102 and English abstract), and optionally Sugimoto (JP 1152017 and English abstract).

The admitted prior art discloses a method for forming a foam padding seat comprising a barrier layer and foam wherein the seat is formed by placing a barrier layer into a mold and foaming onto the back of the barrier layer such that the barrier layer is embedded. The admitted prior art teaches that the barrier layer simplifies removal of the foam element from the mold and prevents caking or baking of the foam onto the mold in the area of the barrier layer. The admitted prior art notes that during foaming there is a danger of the barrier layer being displaced leading to surface defects in the foam element produced (Specification page 2, paragraph 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to coat directly on the entire outer surface (i.e. the mold engaging surface) of the barrier layer taught by the admitted prior art a ferromagnetic coating as it was a well known and conventional

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technique in the art for securing a barrier layer to a mold provided with magnets to prevent the barrier layer from being displaced during molding as shown for example by Banfield et al. It is noted the admitted prior art is silent as to the materials used to form the barrier layer. However, the admitted prior art is not limited to any particular materials. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the barrier layer taught by the admitted prior art a fleece, e.g. woven or nonwoven fabric, as it was well known in the art to form a barrier layer from this material when the barrier layer is used to prevent the injected foam from fouling the mold as shown for example by Harada. Thus, the admitted prior art as modified by Banfield et al. and Harada teach a fleece barrier layer used in a molding operation wherein the outer surface of the barrier layer is directly coated with a ferromagnetic layer wherein Sugimoto is further cited as an additional, optional showing of it being known to apply a magnetic layer directly to a fleece barrier layer to secure the barrier layer during molding.

Regarding claims 18, 21, and 22 it is noted Banfield et al. teach applying the ferromagnetic coating onto the fastener using a knife coater followed by drying the coated fastener such that it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the ferromagnetic coating onto the fleece taught by the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto using this method as only the expected results would be achieved.

Regarding claim 19, it is noted the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto are silent as to applying the ferromagnetic coating by nozzle coating. However, the admitted prior art as modified by Banfield et al., Harada, and optionally

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Sugimoto are not limited to any particular method, and it would have been well within the purview of one of ordinary skill in the art at the time the invention was made to apply the ferromagnetic coating taught by the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto in any conventional manner well known in the art such as nozzle coating as only the expected results would be achieved..

Banfield et al. are directed to producing a molded product having a fastener. Banfield et al. teach a fastener having a layer of fleece, i.e. a nonwoven layer, having a ferromagnetic coating thereon wherein the coating extends across an entire surface of the fastener such that the ferromagnetic coating locates and secures the fastener to the wall of the mold during molding. Banfield et al. teach the ferromagnetic coating comprises polyurethane, ferromagnetic material such as iron oxide powder, and solvent. Banfield et al. teach applying the ferromagnetic coating onto the fastener using a knife coater followed by drying the coated fastener. Banfield et al. teach attaching the fastener to a molded foam product by placing the fastener on a wall of a mold, producing a magnetic field to hold the fastener in position on the wall of the mold, molding a foam element in the mold, and removing the molded foam element with embedded fastener on its surface wherein the ferromagnetic coating is on a surface of the fastener opposite the molded foam (Figures 11-15 and Column 1, lines 9-17 and Column 5, lines 42-47 and Column 6, lines 14-18 and Column 7, lines 5-11, 13-17, 34-37, 41-42, 47-52, 55-57, and 66-68 and Column 8, lines 1-2 and 66-68). Harada discloses a process of injection molding a resin foam onto a barrier layer. Harada teaches the barrier layer prevents the injected foam from fouling the mold, and Harada further teaches the barrier layer is formed from woven, nonwoven, or knitted cloth, i.e. fleece (See abstract). Sugimoto discloses a process of molding a foam onto

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a fleece barrier layer to form a molded product wherein the outer surface (i.e. the mold engaging surface) of the barrier layer has a (directly) applied/tacked magnetic layer to secure the barrier layer to the mold during molding (See abstract).

4. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, Banfield et al., Harada, and optionally Sugimoto as applied above in paragraph 3, and further in view of Von et al. (EP 457226 and English abstract).

Regarding claims 13 and 14, the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto are silent as to all materials useful as the fleece layer, such as polyester. Further, the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto are silent as to the specific amount of polyester and the amount of ferromagnetic coating applied. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the fleece from a polyester such as PET as it was well known in the art to form a fleece used in a molding process from these materials as they are easily shaped and molded as shown for example by Von et al. As to the amount of polyester and the amount of ferromagnetic coating, one of ordinary skill in the art at the time the invention was made would have readily experimentally determined these amounts, i.e. using sufficient polyester to result in good embedding of the fastener and using sufficient ferromagnetic coating to prevent the foam from fouling the fastener, as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claims 15-17, the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto teach the ferromagnetic coating comprises polyurethane, ferromagnetic material such as iron oxide powder, and solvent. One of ordinary skill in the art at the time the

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invention was made would have readily experimentally determined the optimum amounts and specific types of each material to provide an adequate coating, i.e. one that prevents fouling of the mould, as doing so would have required nothing more than ordinary skill and routine experimentation.

Von et al. disclose textile fleece materials that are high strength, low weight, and can be shaped and molded easily. Von et al. teach the fleece is formed from polyester fibers, preferable PET (See abstract).

5. Claims 20 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, Banfield et al., Harada, and optionally Sugimoto as applied above in paragraph 3, and further in view of Persoon (U.S. Patent 2,909,442) and Chebiniak (U.S. Patent 3,497,411)

The admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto teach all of the limitations in claims 20 and 23-25 as applied above except for a teaching on using a transfer ribbon to apply the ferromagnetic coating to the fastener. However, it would have been well within the purview of one of ordinary skill in the art at the time the invention was made to apply the ferromagnetic coating taught by the admitted prior art as modified by Banfield et al., Harada, and optionally Sugimoto using a transfer ribbon as it is well known in the art to use a transfer ribbon to apply a coating to a substrate as a means for controlling the width and thickness of the coating as shown for example by Persoon and Chebiniak.

Persoon is directed to applying a magnetic coating to a film. Persoon teaches applying the coating to a transfer carrier ribbon, laminating the transfer ribbon to the film using heat and pressure, and separating the ribbon and film to obtain a film with a magnetic coating of a desired

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thickness and width (Figures 1-3 and column 1, lines 43-48 and 55-57 and Column 2, lines 18-62). Chebiniak is directed to applying a magnetic coating to a substrate. Chebiniak teaches applying the coating to a transfer carrier substrate, laminating the transfer substrate to the end use substrate using heat and pressure, and separating the two substrates to obtain a substrate with a smooth magnetic coating. Chebiniak further teaches that the carrier substrate may incorporate a silicon lubricating substance (Column 1, lines 15-26, 37-38, 51,52, and 63-64 and Column 2, lines 11-14, 45-50, and 55-60 and Column 3, lines 68-73).

Response to Arguments

6. Applicant's arguments with respect to claims 12-29 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues, "However, as noted above the Banfield patent only teaches a ferromagnetic coating on fastener hooks 2 or loops 3, and not directly on a fleece layer. In failing to equate the Banfield fastener to the barrier layer of the alleged admitted prior art or the Harada patent, the statement of the rejection fails to present a prima facie case of obviousness." It is noted claim 12 as amended requires the ferromagnetic coating directly on the fleece. The admitted prior art as modified by Banfield et al. and Harada disclose the same. Sugimoto is optionally cited as additionally showing it was known to form a molding with an embedded fleece layer wherein the fleece is secured during molding through a magnetic layer directly on its outer surface.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff



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